

Spring 1972

# Wright ahead

the Head Wrightson magazine



## COVER PHOTOGRAPH

The beautiful and impressive building of Bowes Museum at Barnard Castle, County Durham was founded by John Bowes, son of the 10th Earl of Strathmore, and his wife Josephine. Both shared an immense enthusiasm for collecting works of art and together they amassed large collections. In the early 1860's they decided to build a museum in which to exhibit their collections and commissioned a French architect Jules Pellechet, to prepare designs.

The Chateau design building was originally planned to be sited in France. However, because of political events, John Bowes eventually had it built at Barnard Castle, the nearest town to his English country home, Streatlam Castle. With the UK presently in the midst of going metric (pages 8-9) it is perhaps interesting to know that it was over a century ago that Bowes Museum was built by a local builder using metric drawings.

## APPOINTMENTS



**Head Wrightson & Co Ltd**  
Mr Alastair Morton *left* was appointed a Director of Head Wrightson & Co Ltd on the 9 March 1972.

Mr Morton, who is 34-years-of-age was Chairman of B&S Massey & Sons Ltd prior to its acquisition by Head Wrightson earlier this year.

**Head Wrightson Foundries Ltd**

Mr JV Henderson *below left* was appointed Director & General Manager of the Steelcast Division of HW Foundries Ltd with effect from 1 February 1972.

Mr IP McDowall *below right* was appointed Technical Director of the Steelcast Division of HW Foundries Ltd with effect from 1 February 1972.



## CONGRATULATIONS



Congratulations to Mr Frank Brown *Managing Director of HW Stampings Ltd* who was inaugurated as President of the National Association of Drop Forgers & Stampers by the retiring President Mr MC Vaughan at the Association's Annual General Meeting on 22 March 1972.

# HEATHROW TUBE EXTENSION

Head Wrightson is to play a part in easing traffic congestion caused by the new jumbo jets at London's Heathrow Airport.

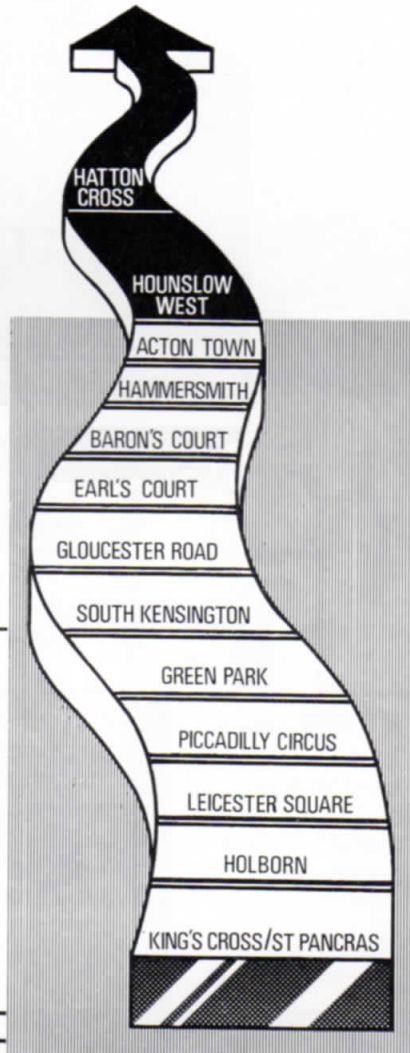
The Iron Founding Division of HW Foundries Ltd is to supply more than 2000 tons 1967.8 metric tonnes of cast iron tunnel segments for the Heathrow extension of the Piccadilly underground railway line.

The extension is planned to relieve congestion on the roads around the airport and to clear the terminal building as soon as possible after the touch-down of jumbo jets. These jets, which can carry over 300 passengers at a time, pose major traffic problems likened to the QE2 docking every hour.

Work has started on the first stage of the extension, from Hounslow West



HEATHROW CENTRAL



West to Hatton Cross and the contract for the second stage, in which HW is involved, has recently been placed with John Mowlem & Co Ltd.

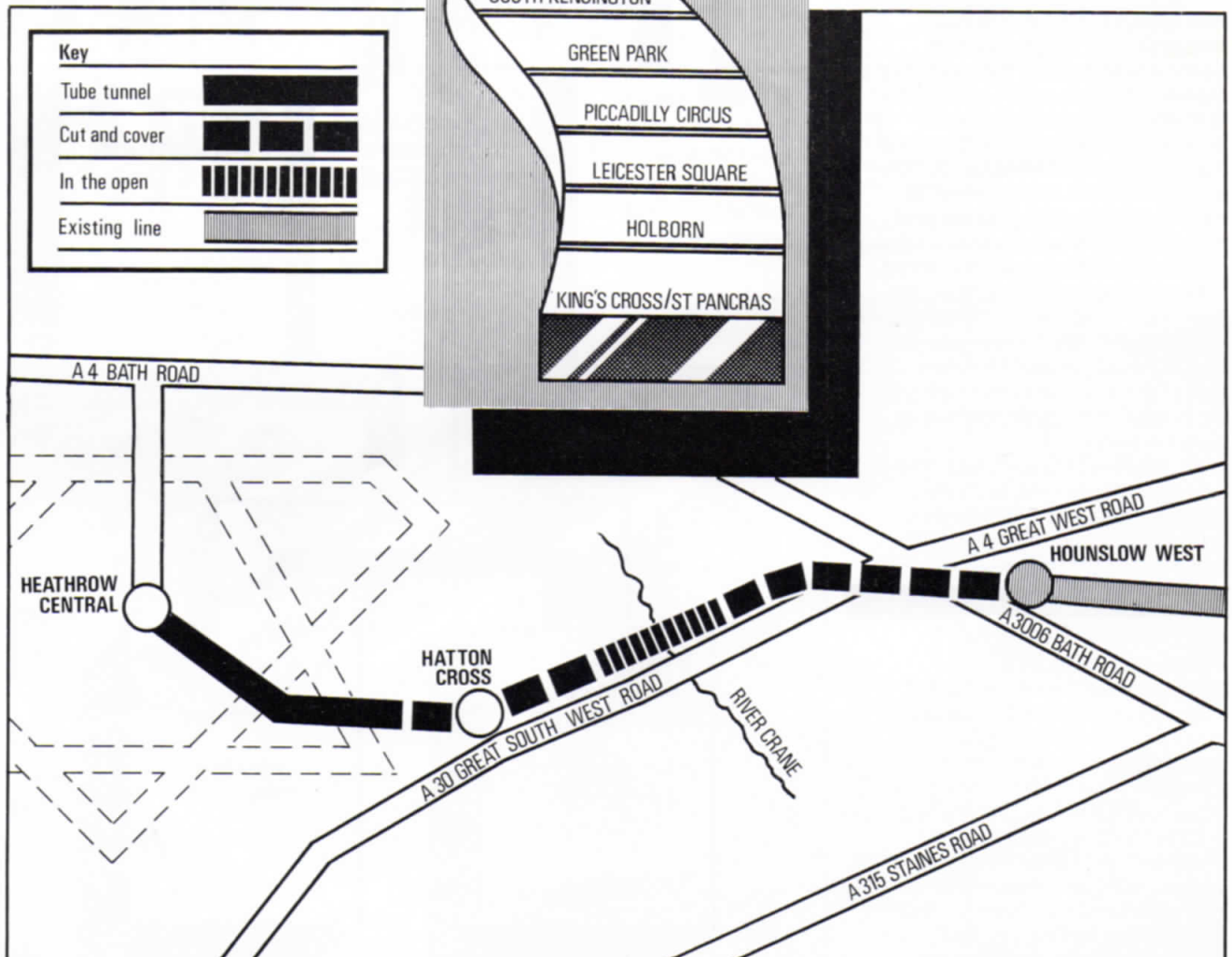
The second stage from Hatton Cross to the terminal building is almost entirely underground and Head Wrightson is supplying all the tunnel segments for this section. Twin tunnels over a mile long, with a diameter of 12 ft 6 ins 3.81 m will be driven through blue clay at a depth of between 25 and 50 feet 7.62 m and 15.24 m.

Production has started at the Eaglescliffe Works and is expected to go on through the summer. The segments will be manufactured and stocked for delivery according to the customer's requirements.

The £15m extension of the line is expected to be completed by 1976 and will bring Heathrow within 35 minutes of London's West End.

left: The Piccadilly Line with extensions

below: Detailed sketch of the Hounslow West, Hatton Cross and Heathrow Central extensions



# THE MASSEY GROUP

Early this year it was announced that the Manchester engineering and steel stockholding group B&S Massey and Sons Limited had become part of Head Wrightson & Company Limited.

## B & S Massey & Sons Ltd

B&S Massey was founded in 1861 by the Massey brothers Benjamin and Stephen. Set up on a small plot of land 120 feet square *36.5 metres square* to supply steam engines and machinery to the cotton industry, the firm changed to manufacturing a wide range of metal forming machines and their Openshaw site now occupies 180,000 square feet *16,722 square metres*.

By the turn of the century Massey had established a world wide reputation for building steam hammers and under the guidance of Benjamin's two sons Leonard and Harold, developed pneumatic power hammers and friction drop hammers. In the twenties, double-acting steam or compressed air hammers, trimming presses and tyre fixing rolls were added to the range of machines manufactured. After the Second World War, the heavy demand for machines capable of high production rates was met by the introduction of forging presses, Use rollers and improved automatic working friction drop hammers.

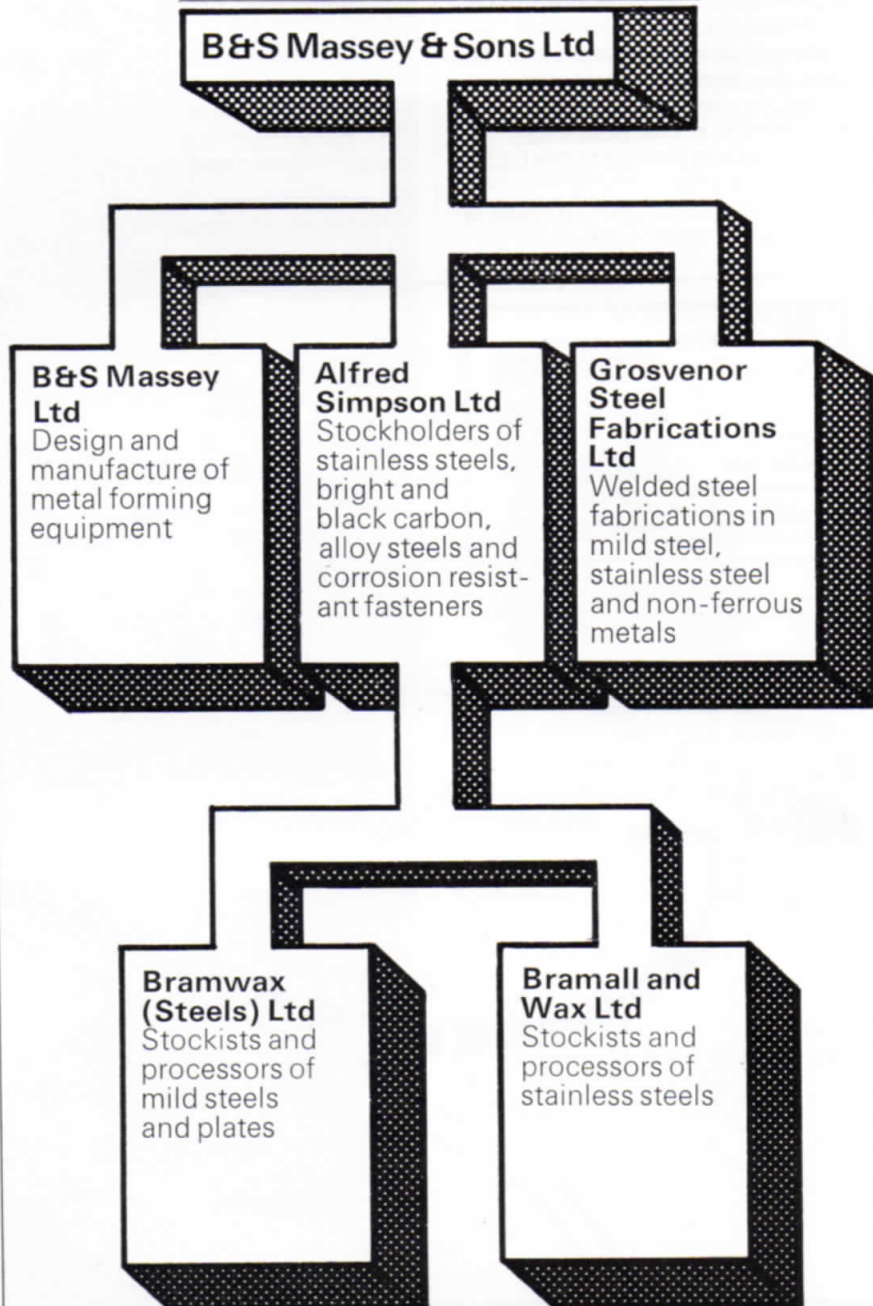
B&S Massey & Sons Ltd is now a non-trading holding company. The design, manufacture and sale of equipment is carried out by B&S Massey Ltd from Openshaw.

## Grosvenor Steel Fabrications Ltd

New manufacturing methods, including the use of fabricated machine frames, led to the acquisition of Grosvenor Steel Fabrications in 1959. Grosvenor was founded in 1941, manufacturing light steel fabrications and aircraft components in Denton Manchester. Since then this company has steadily expanded and has been re-housed in a modern factory on the Shepley Industrial Estate, Audenshaw,



B&S Massey & Sons Ltd





Manchester. The factory area totals 60,000 square feet 5,574 square metres for the fabrication of pressure vessels and other units for the shipbuilding, chemical and petrochemical industries.

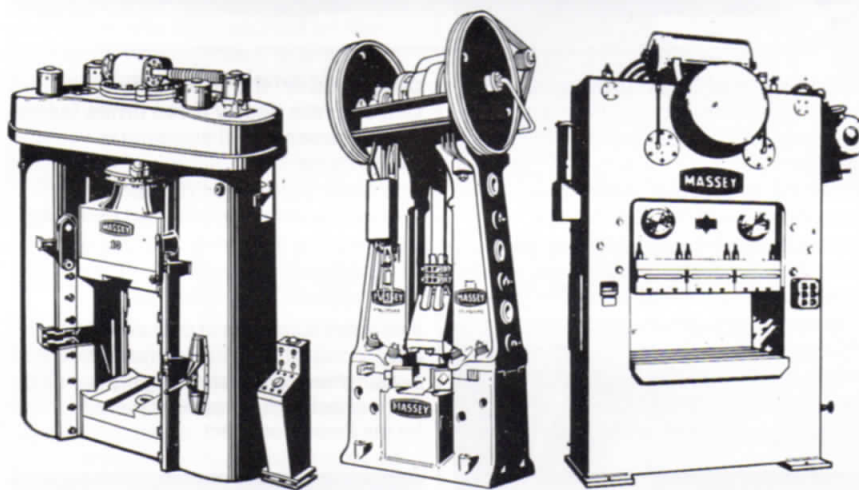
### Alfred Simpson Ltd

The sixties saw many changes in the group's activities. Alfred Simpson Limited, a black and bright steel stockholding company, founded in 1800 and located in the heart of Manchester was purchased and the stock and staff transferred to the Manchester Openshaw site. Since then stockholding has been extended to special steels and non-corrosive fasteners particularly in stainless steel. A depot and warehouse was set up at Cannock in the Midlands and recently the share capital of Bramall and Wax Ltd, and Bramwax Steels Ltd, steel stockists based in Sheffield, has been acquired. Alfred Simpson like Grosvenor have proved to be a valuable asset to the Massey organisation.

'Wright ahead' extends a sincere welcome to all employees of the Massey Group as new members of Head Wrightson.

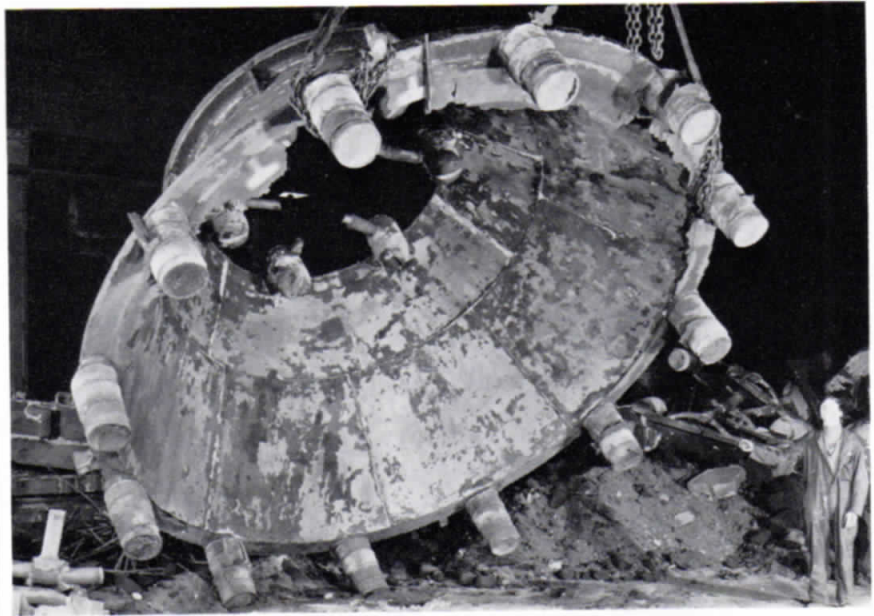
*above* : Aerial view showing the extent of the Massey works at Openshaw, Manchester. The new office extension shown (page 2) was completed in 1969

*below* : A view of the Grosvenor factory at Audenshaw, Manchester



# STEELCAST BELL CASTING

This giant casting was made by HW Foundries Ltd Steelcast Division at Billingham for Whessoe Ltd. The vital statistics of this cast steel blast furnace bell hopper are, 18 tons 17.71 metric tonnes black weight—24 tons 23.61 metric tonnes poured weight. The largest diameter is 17 ft 6 ins 5330 mm, the smallest diameter 10 ft 3055 mm and the depth 7 ft 3 ins 2219 mm. The photograph shows the casting in its rough state prior to dressing.



# NEW WELDING TECHNIQUE

HW Teesdale has employed a new welding process to hard surface the bell for the new four post blast furnace plant being built for Somisa in Argentina.

Hard facing of blast furnace bells is necessary to reinforce them against abrasion by the cascading ore burden.

This new method of welding is known as 'twin hot/twin cold' automatic submerged arc welding. Four tubular electrode wires are fed into a common weld pool. Only two electrodes are connected to the power source; the other two simply being melted by the heat from the two arcing electrodes.

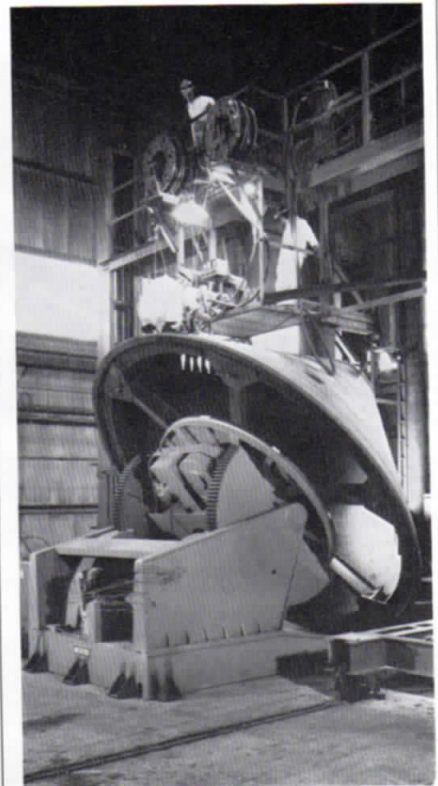
Nearly four tons of weld metal was

deposited on the Somisa furnace bell at a rate nearly three times faster than conventional automatic techniques.

The basic principles of the technique were developed by ESAB Ltd and it is believed that this is the first contract anywhere in the world to incorporate this process.

*below left* : Close-up of the hard surfaced area

*below* : Photograph showing the set-up for hard surfacing the large blast furnace bell for the Somisa contract



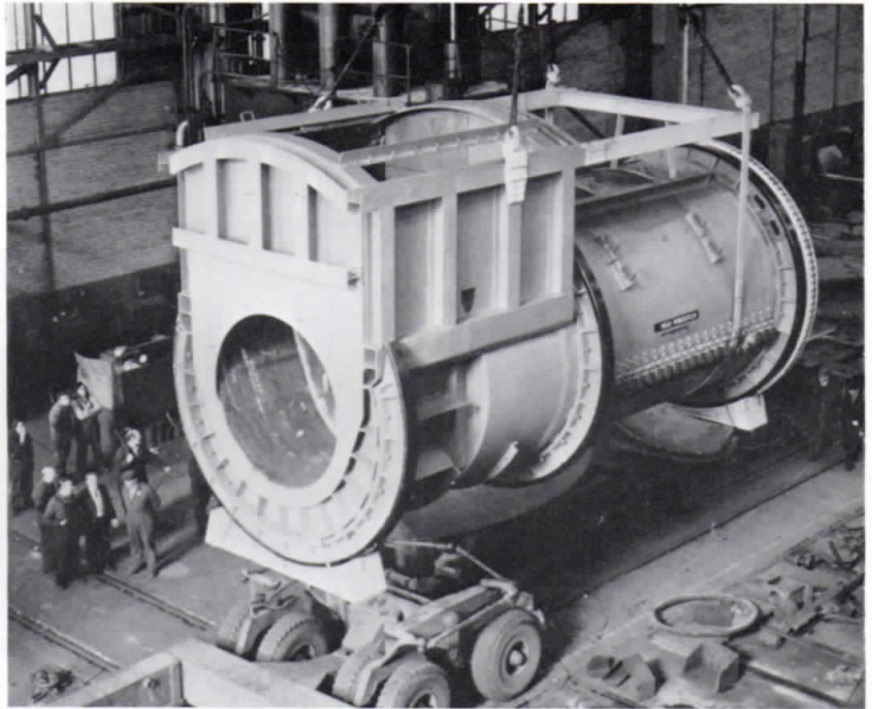
## DEADLINES BEATEN ON EXPORT ORDER

HW Process Engineering have entered the final phase of the £4m contract in the construction, to engineering designs of Selection Trust Ltd of London, of the first copper refinery in the south-eastern part of the USA.

This management, engineering, procurement and site supervision contract was awarded to HWPEL by the Southwire Company of Georgia in June 1970 and is the largest order ever placed with a British Company for a development of this kind in the USA.

An important part of the equipment for the refinery is the 12 ft x 20 ft 3.65 m x 6 m Hoboken type copper converter which was supplied in record time by HW Teesdale. The converter was despatched on the 24 March for shipment to the USA. It should be in operation at the plant on 1 July 1972.

*photo* : The copper converter being despatched from Teesdale works for shipment to the USA four weeks ahead of schedule



## BSC LLANWERN CONTRACT

HW Process Engineering Limited has been commissioned to carry out a £4m expansion programme at the BSC Llanwern Works at Newport, Monmouthshire.

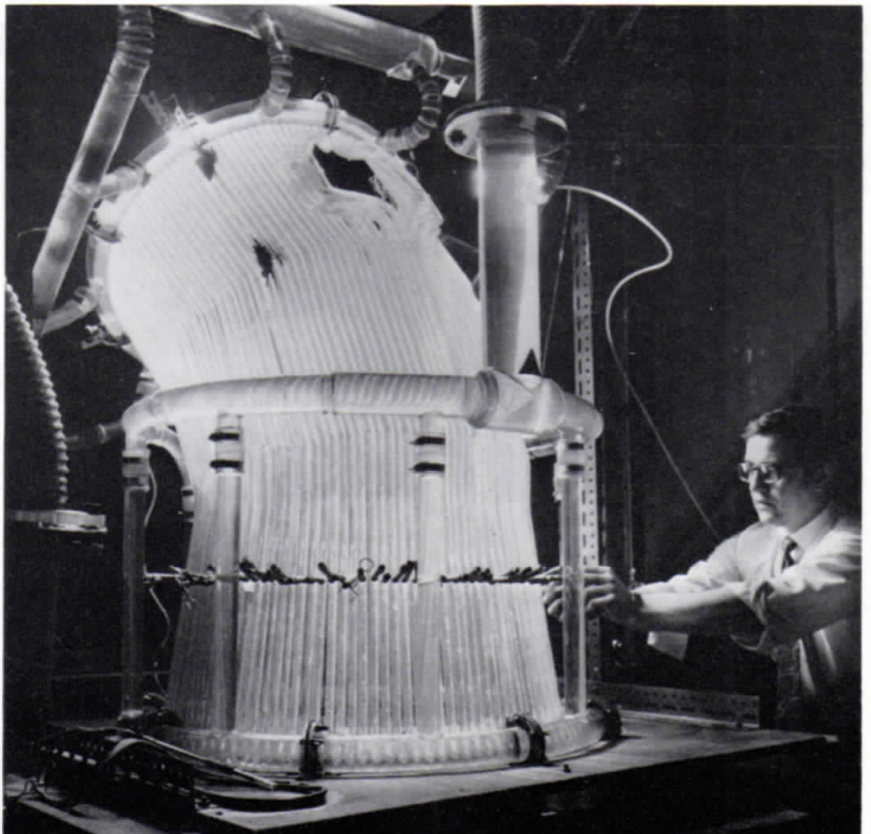
The contracts include the supply of three large BOS furnaces and a management contract for the associated gas equipment.

The three basic oxygen steelmaking furnaces will each be capable of producing 175 tons 172.2 metric tonnes of steel in 16 minutes.

They are being designed in partnership with the West German company Demag and much of the manufacture will be undertaken by HW Teesdale Ltd.

Work at Teesdale will start later this year and the first furnace is expected to be delivered in the following summer, to be in operation within five months of installation. The other two furnaces will follow at intervals of four months.

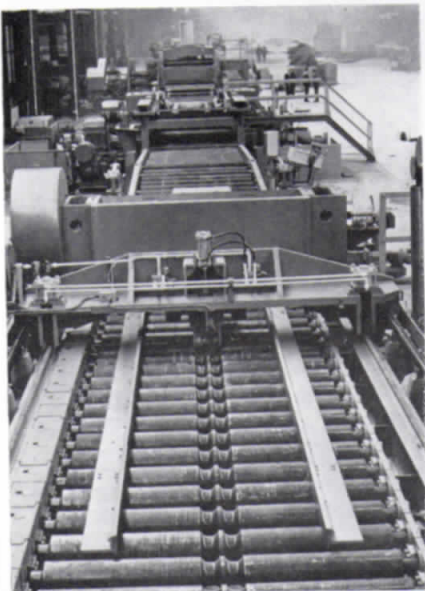
The management contract is to supply each of the three furnaces with its own independent gas handling system including a high energy water scrubber to cool and clean the gases. This incorporates the new advanced suppressed combustion fume recovery system developed in France by IRSID CAFL for which Head Wrightson are sole licensees in the UK.



*photo*: Perspex model being used in the Company's Research and Development Division to determine the water flow

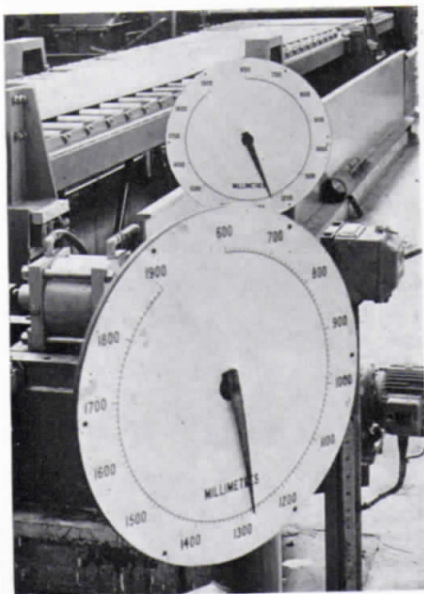
distribution in the fume hood of the gas cleaning system for the BOF converters being supplied by HW Process Engineering to BSC Llanwern

## Cut-up line for Lackenby Works



As the photograph above shows, commissioning of the latest HW Machine Company heavy plate cut-up line is well advanced at the BSC Lackenby Works and the line is expected to be in production this summer.

The line will produce accurately sheared and levelled steel plate up to  $\frac{1}{2}$ " 13 mm thick for use in shipbuilding and general steel fabrication.



This project is intended to complement the existing HW cut-up line at the BSC Redcar Works and is the fifth heavy plate cut-up line HWM have supplied to the BSC during the past ten years.

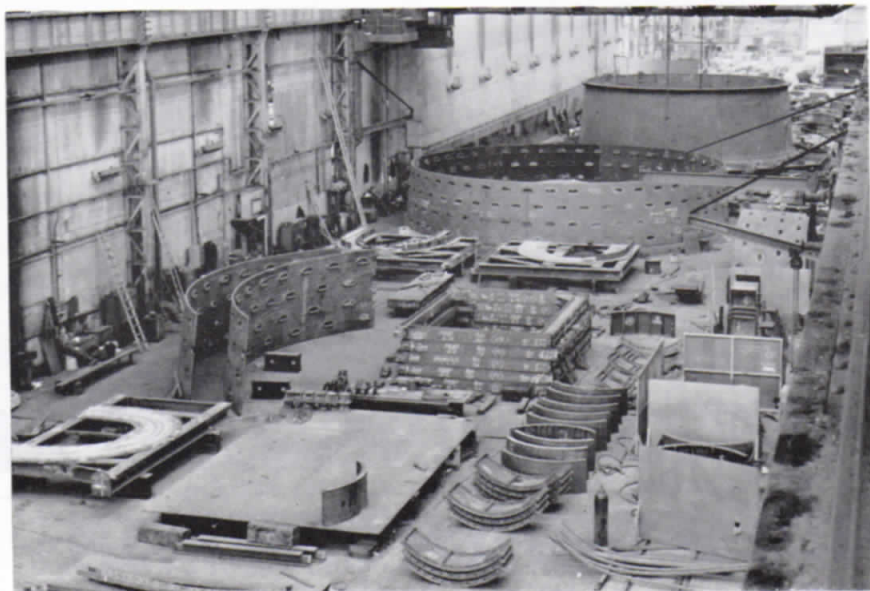
## Somisa

Some of the heaviest items of steelwork have been erected at the site of the Somisa four post blast furnace in San Nicolas, Argentina. The furnace shell, four post structure, dust catcher, and stove shelves are now in position. The photograph shows some of this steelwork in the Teesdale shops

prior to shipment.

The 32 ft 9.65 m hearth diameter furnace will have a capacity of 3600 metric tonnes of hot metal per day, although it has been designed to attain 4500 metric tonnes in the future by increasing the furnace volume.

The Somisa unit is the largest blast furnace ever supplied by HW.



## Cleveland Potash

Detail engineering work on the Cleveland Potash project was completed in April at the London Office of HW Process Engineering. This contract for Cleveland Potash Limited involved the detailed engineering design, procurement and expediting for the potash treatment plant now being constructed at Boulby Mine near Staithes in North Yorkshire. Construction work, which is well advanced, is being carried out by the client and the plant is expected to be completed by early next year. The treatment plant will produce 1,000,000 tons 983,928.6 metric tonnes of potash per annum, refining it into five different grades. The contract for the mine shaft segments placed separately with HW Iron Foundries has also been completed. This involved the manufacture of 2,200 segments with a total weight of 8000 tons 7,871.43 metric tonnes of high grade cast iron. Cleveland Potash Limited is jointly owned by Charter Consolidated and Imperial Chemical Industries Limited.



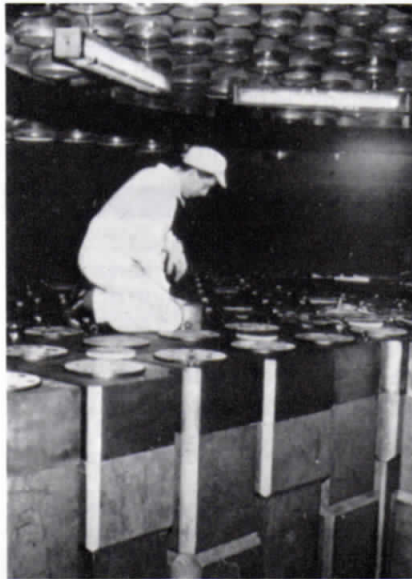
### Hunterston

The major part of our contract on both reactors of the Hunterston 'B' Nuclear Power Station is complete—the boiler shield wall, graphite core and neutron shield *photo* being completed in each reactor.

We are now in the final phase of the contract which involves the installation of the guide tubes through which the fuel stringers, control rods and other facilities enter the reactor core.

It is expected that our part of the contract will be completed by April 1973.

Head Wrightson's contribution to the nuclear power industry has included design and supply to no less than 17 commercial and research reactors in the UK and overseas.



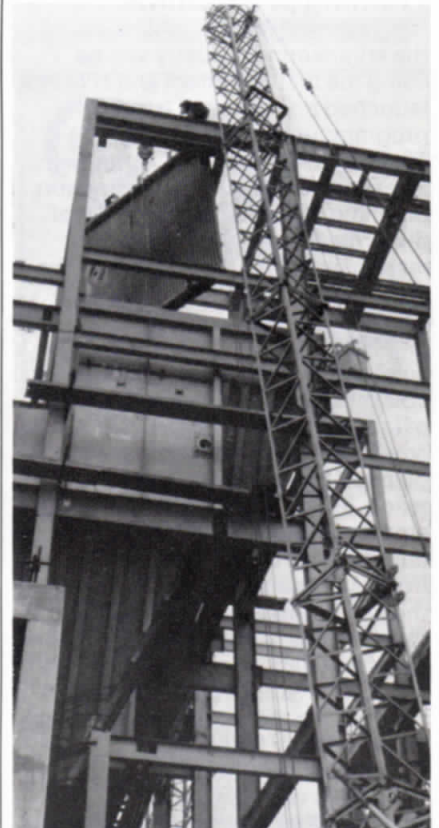
### Nottingham incinerator

Installation work has started on the site of the new Nottingham municipal incinerator, being built by HW Process Engineering.

HW personnel moved on to the site in January and have now installed the two grates and have erected the boiler support structure for number one and number two boilers. The photograph shows a boiler panel being lowered into position.

This plant, which is due to be commissioned in December this year, will consist of two 11½ tons 11.4 metric tonnes per hour incinerators.

It will be the first plant of its kind in Britain to recover the heat from the incineration of domestic refuse and use it for a district heating scheme. This scheme will eventually serve 6,000 homes, together with two shopping centres, public buildings



### Corby sinter plant

The £3m sinter plant for BSC Corby is now completed and about to go into full production.

The plant was commissioned in March—just 23 months after the contract was placed with HW Process Engineering.

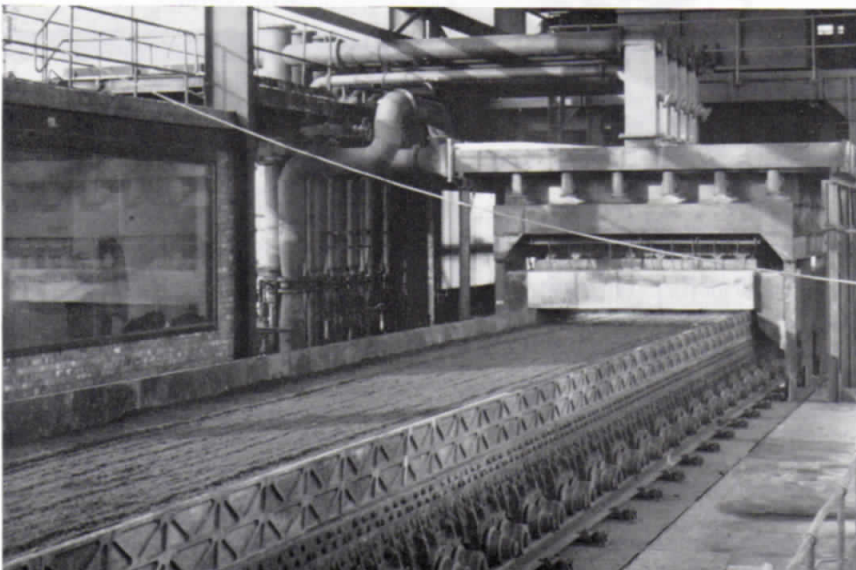
With a surface area of 2,000 sq ft 185.6 m<sup>2</sup> it is the largest sinter grate in operation in the country and has a production capacity of 30,000 tons 29,517.86 metric tonnes of sinter per week.

The plant was designed to sinter local Northamptonshire ore for subsequent use in the blast furnaces of the BSC Tubes Division, Corby.



*right:* sinter cooler

*below:* sinter strand and ignition hood



and the Polytechnic in the City of Nottingham.

It is the third plant HWPEL have supplied under the licence agreement with Josef Martin of Munich. The other two — at Exeter and Birmingham — are now in operation and installation of a fourth plant at Coventry is planned to start in November.

# METRICATION



Considerable advance has been made for the Head Wrightson organisation to go metric. On 1 April it became our preferred system to use SI metric units (International System of Units) although working in imperial units will continue to customer requirements. This move was timed to coincide with BSC's changeover to the metric system.

## Training programme

It is expected that by 1975 most of the engineering industry will be using the metric system and HW has launched a substantial training programme to prepare for this. The group Metrication Committee is responsible for the co-ordination, planning and general operation of the switchover, but the basic responsibility for the success of the exercise lies with the subsidiary companies.

The HW Training Centre in conjunction with local technical colleges have already given courses of instruction to nearly 500 employees, and more courses are planned for the future. These teach-ins are designed to familiarise employees with SI units and demonstrate their use.

Ironically, many young children in the north-east are already ahead of their parents in metrication for in the past few years, a large number of schools have already turned towards the metric system and more will inevitably follow suit.

Several of our subsidiary companies have been working to metric specifications for a number of years as a result of their many export contracts and so the 'mechanical adjustments' required were quite small.

About 50% of the engineering effort in orders at present placed with HW Teesdale and HWPEL is in the metric system at customers' requests and at Machine Company this proportion is even higher. It is expected that within a year between 75 and 80% of our engineering work will be

designed in metric units. Designers and draughtsmen will have to do calculations and produce drawings in metric units; shop floor personnel will have to work to metric drawings; in fact, all personnel will have to become familiar with the metric units used in their jobs.

## Why?

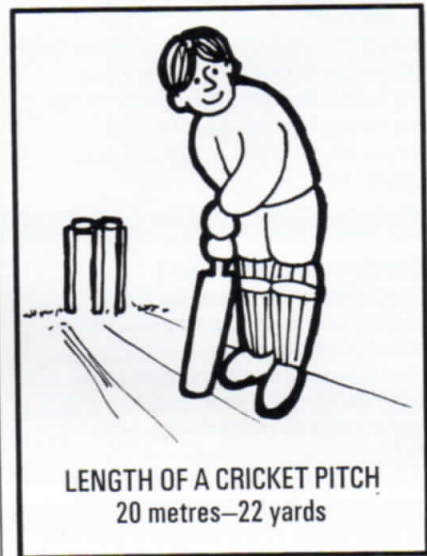
The decision to go metric was taken in 1965 by the Federation of British Industry and resolved a controversy which has raged for nearly two centuries. The FBI decision was approved by the Government who set up the Metrication Board in 1969 to help with advice during the changeover.

The case for going metric rests on two main points. First, the overwhelming majority of the people of the world already use the metric system of weights and measures. At the present rate of progress the metric system will be the world system of measurement before many years have passed. The greater part of Britain's trade is with metric countries and the proportion is growing. Metric is the international system used by most of our overseas customers, suppliers, and competitors, and Britain cannot, therefore, afford to continue using the traditional imperial systems in a metric world.



Second, metric is a better system than our traditional imperial weights and measures. It is simple, systematic, straightforward and convenient for all purposes in industry, commerce, education and everyday life. Teaching, learning and working in metric reduces errors and saves time.

There is one basic unit, the sizes of which go up or down in tens. Arithmetic often involves simply moving a decimal point. This is particularly useful when working with metric quantities and decimal currency. For example, 15p per kilogramme is £150 per metric tonne. Length is measured by the metre, which is multiplied by 1000 to produce the kilometre (for distance) and divided by 1000 to produce the millimetre (for small dimensions). Compare this with the more complicated inches, feet, yards, furlongs and miles.



We have been forced into going metric, because most of the world uses metric but the change to metrication offers in addition a unique opportunity for many aspects of industry to rationalise on designs, products, stocks and production techniques, to result in more efficient manufacture and more competitive marketing.

## When?

Unlike decimalisation, there will be no 'M' Day, the change will be gradual, spread over years, rather than sudden conversion on a specific date. Considerable progress has already been made in bringing metrication into effect in industry and education. You have probably noticed the increasing number of domestic products which appear with weights or measures in metric as well as imperial.

Each firm decides its own changeover dates, usually within the target date set by its own industry. Naturally, a firm must take into account, the changes being made by its suppliers, the changing

# SOME EVERYDAY METRIC UNITS

quantity	unit	symbol	how big are they ?
length	millimetre (one thousandth of a metre)	mm	about 25 to the inch
	centimetre (one hundredth of a metre)	cm	less than $\frac{1}{2}$ inch
	metre	m	just over a yard
	kilometre (one thousand metres)	km	$\frac{5}{8}$ of a mile
area	square centimetre (one ten thousandth of a square metre)	cm <sup>2</sup>	about 6 to the square inch
	square metre	m <sup>2</sup>	about $1\frac{1}{4}$ square yards
	hectare (ten thousand square metres)	ha	nearly $2\frac{1}{2}$ acres
capacity	decilitre (one tenth of a litre)	dl	about $\frac{1}{4}$ pint
	litre	l	about $1\frac{3}{4}$ pints
	hectolitre (one hundred litres)	hl	about 22 gallons
weight	gramme (one thousandth of a kilogramme)	g	about 450 to the lb
	kilogramme	kg	nearly $2\frac{1}{4}$ lbs
	tonne (one thousand kilogrammes)	t	nearly a ton

needs of its customers, and what its competitors are doing, but generally the change should be substantially completed by 1975.



## Think metric

It is important to think metric and not to try relating the old units to metric units. The familiar terms of miles, inches, pounds, tons, gallons, etc will eventually go and in their place will appear kilometres, millimetres, grammes, kilogrammes, and litres, etc. We must learn the metric units and forget the old ones. We must think in metric, not convert from one system to the other. Decimalisation has proved that.

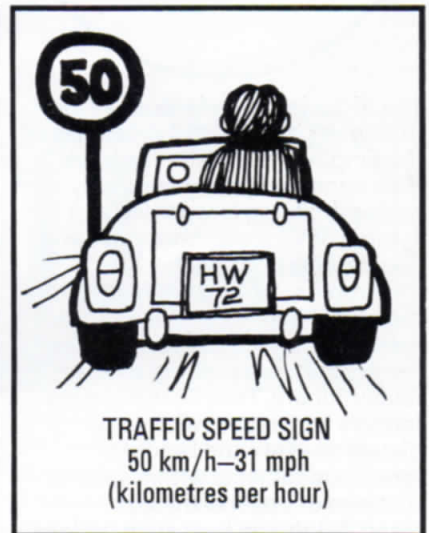
## Miss Metric World

In last year's Miss World competition, 50 girls came to London from independent countries throughout the world to compete for the title. Thirty-seven competitors came from metric countries and 11 came from countries presently going metric. The winner was Miss Brazil. (Metric) 90 cm — 58 cm — 90 cm ; or 35 $\frac{1}{2}$  ins — 23 ins — 35 $\frac{1}{2}$  ins.



## Beds now metric

It was recently announced that new metric bed sizes are 15% larger than the old imperial range. The main new sizes are :



**standard single**  
200 cm x 100 cm  
6 ft 6 $\frac{1}{2}$  ins x 3 ft 3 $\frac{1}{2}$  ins

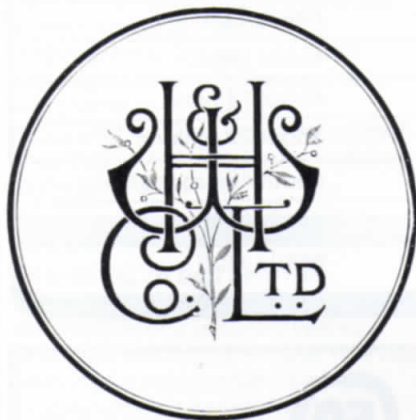
**standard double**  
200 cm x 150 cm  
6 ft 6 $\frac{1}{2}$  ins x 4 ft x 10 $\frac{7}{8}$  ins

## Doing a tonne up

The English reputation of always being different — if not eccentric — has not taken metrication lying down. For, to avoid confusion between the imperial ton and the metric tonne the BSC amongst others has instructed its staff to pronounce tonne as 'tunnie', to continental ears it will probably be interpreted as John Bull's revenge.

# FROM THE FAMILY ALBUM

A principal activity of the past which established Head Wrightson, in the second half of the last century, was the building of cast iron bridges. From this product the company acquired immense engineering expertise.



The Victorians saw bridges as the promoters of trade and defenders of the Empire and the story behind their construction explains why bridge-building is regarded as a symbol of Victorian enterprise and engineering confidence.

The Iron Bridge and the Railway marched hand in hand across the world in the 19th Century with an impact that was nothing short of revolutionary. They linked remote farmers and traders with eager distant markets and brought rebellious subjects within striking distance of imperial troops. Head Wrightson built such bridges on four continents. From the Bridge Yard of the infant company at Teesdale they went out to India, China, Japan, South Africa, The West Indies, Spain and the great railway companies of Great Britain.

## Rudyard Kipling

One of the most famous of these bridges was built in India—begun in 1876, 10 years after HW was formed—was christened by the Empress—Queen Victoria and immortalised by Rudyard Kipling in one of his short stories.

The Kashi Bridge around which Kipling's story 'The Bridge Builders' centres is generally accepted to be the Empress Bridge and Findlayson,

the hero, to be HW's resident engineer on that project, Mr JR Bell. Kipling, who saw the bridge being built leaves us in this story with a vivid impression of what it was like on an HW site almost a century ago:

*'East and west and north and south the construction trains rattled and shrieked up and down the embankments, the piled trucks of brown and white stone banging behind them till the side-boards were unpinned, and with a roar and a grumble a few thousand tons more material were thrown out to hold the river in place . . .*

*Findlayson, CE, turned on his trolley and looked over the face of the country that he had changed for seven miles around. Looked back on the humming village of five thousand workmen; up-stream and down, along the vista of spurs and sand; across the river to the far piers, lessening in the haze; overhead to the guard-towers—and only he knew how strong those were—and with a sigh of contentment saw that his work was good. There stood his bridge before him in the sunlight, lacking only a few weeks' work on the girders of the three middle piers—his bridge, raw and ugly as original sin, but pukka—permanent—to endure when all memory of the builder, yea, even of the splendid Findlayson truss had perished. . . .*

*It was a long, long reverie, and it covered storm, sudden freshets, death in every manner and shape, violent and awful rage against red tape half frenzied a mind that knows it should be busy on other things, drought, sanitation, finance; birth, wedding, burial, and riot in the village of twenty warring castes; argument, expostulation, persuasion, and the blank despair that a man goes to bed upon, thankful that his rifle is all in pieces in the gun-case.'*

The Empress Bridge spanned the dangerous Sutlej river whose width varied according to the season from quarter of a mile to six miles. The bridge itself was 4/5ths of a mile long 1280 m and divided into 16 spans of 250 ft 76.2 m clear. The Government of India wanted the bridge urgently because of the military turbulence of the Punjab region and so the contract for this bridge was divided between Head Wrightson and another company—each responsible for one half. To further hasten the work Head Wrightson experimented upon and finally introduced the Siemens electric lighting apparatus which allowed work to go on late into the evening during the winter of 1876.

*below:*

A group of the 'Empress Bridge' builders



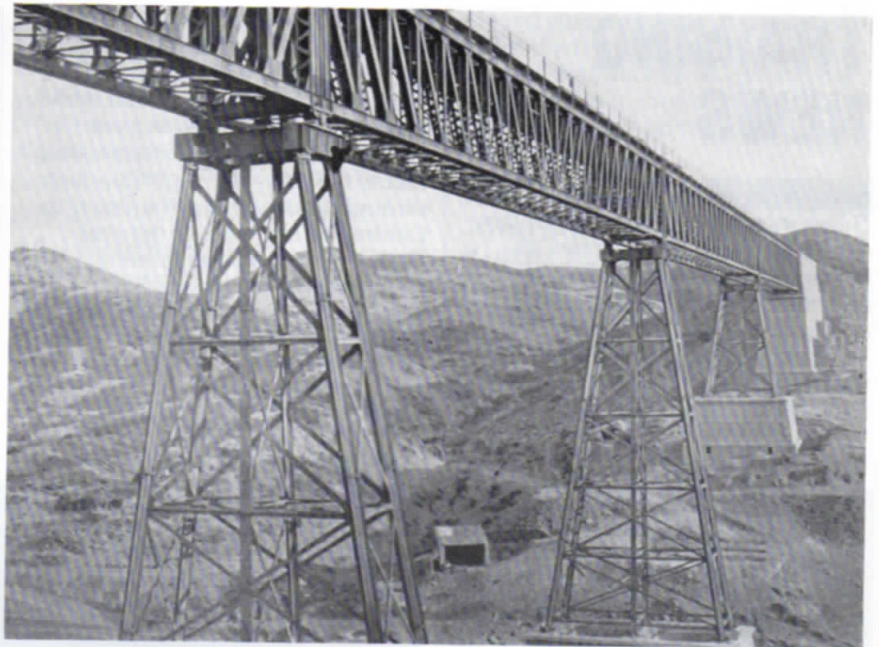
## The Odiel Viaduct, Southern Spain

Further proof of the pioneering spirit which lay behind Head Wrightson's site work a century ago is given in a company 'Album of manufactures' published in 1903 which refers to the building of the 800 ft 243·8 m long viaduct across the deep ravine of the river Odiel, in the heart of the Sierra Morena Mountains, twenty miles from Huelva in the south of Spain.

*'The erection was a most serious undertaking. Twenty miles from the nearest town, houses for the men had to be built, supplies of food procured, and water—a scant commodity—had to be carried on mules and donkeys a great distance. In spite of all the care exercised, after six months all the men broke down with malarial fever, and it was decided to bring them home and carry on the work with natives after the hot months had passed. This was eventually done, and the contract was brought to a successful issue.'*

HW secured all the bridge building contracts for the Seville & Huelva Railway Company, in Spain, as well as for the Pretoria-Pietersburg Railway in South Africa. They also supplied bridges to the Imperial Chinese Railways and to over 13 Japanese railway companies. Other notable bridges include one for the Natal Government Railway in South Africa and a road bridge for the Crown Agents for the Colonies in Trinidad.

above right: The Odiel Viaduct, Spain  
right: Putney Bridge over the Thames



3 m above. The cylinders are filled with cement, concrete, and brickwork in cement, and are sunk to an average depth of 45 ft 13·71 m below the river bed. The superstructure is of wrought iron and the total weight of the superstructure and substructure is over 7000 tons 6887·5 metric tonnes. The first cylinder was pitched in July 1887, and the bridge entirely completed, and all plant removed in March 1889.

## Victorian Eulogy

Another souvenir of the HW past provides a perfect 'Victorian' ending for this reminiscence on bridges. It is the closing lines (of some 200) addressed by Mr J Parry, a works manager, to the Masters, Foremen and Staff of Teesdale Iron Works on the occasion of their Annual Stocktaking Dinner held on 3 October 1874.

*'But ere I end, some passing words,  
To Teesdale's enterprising lords;  
And wicked dies must strike the pen,  
That owns not worth in Teesdale  
men.*

*The suppliant world before you lies,  
Asks—yea implores your enterprise.  
The punch, the lathe, the plane,  
the drill,  
Await the magic of your skill.  
Your handicraft borne by the tide.  
O'er Indian rivers proudly stride;  
And e'en New Zealand's barb'rous  
bands*

*Are tamed by structures from your  
hands.  
The quiet brook, the gentle rill,  
The roaring torrents of Brazil—  
O'er deep ravines and treacherous  
tracts,  
O'er deaf'ning falls and cataracts,  
O'er gorge and stream your bridges  
span,  
Thus aiding science in her plan  
To humanize—to succour man.'*

## The Thames Bridge, Putney

Many of these bridge building activities were concentrated on the various British railway companies which mushroomed in the first half of the last century. Perhaps the best known of the HW railway bridges in this country is the bridge over the Thames at Putney connecting the old London & South West Railway with the Metropolitan District Railway at Fulham.

The bridge consists of three spans of 120 ft 36·57 m and five spans of 153 ft 46·63 m carrying two lines of rails and having a footway outside the main girder on the down river side.

It is supported by 14 cast iron cylinder piers, 14 ft 4·26 m diameter below the bed of the river and 10 ft

# TRAINING NEWS

## Mary Burton Trophy

This trophy was donated in 1969 by Arthur Burton *HW Teesdale DO*, in memory of his wife, Mary, for presentation to the outstanding apprentice of the year in the HW Training Centre. The winner holds the beautiful silver cup for one year and in addition receives an inscribed tankard to retain as a perpetual memento of the occasion.



## EITB 1st Year Certificate Awards

### HW Machine Co

B Allison *plater*  
 GE Almond *fitter*  
 S Dutton *turner*  
 MG Ferrier *draughtsman*  
 A Fryer *turner*  
 R Fryer *turner*  
 TG Jones *turner*  
 SA Parkin *fitter*  
 C Smith *fitter*  
 FA Woodward *turner*

### HWPEL

DS Brennan *draughtsman*  
 DJ Scrace *draughtsman*  
 MW Smith *draughtsman*  
 C Stoddart *draughtsman*

### R&D Division

R Harker *draughtsman*  
 I Henderson *draughtsman*

### HW Stampings

LW Gretton *die sinker*  
 G Hall *draughtsman*  
 R Hudson *electrician*  
 J Richmond *die sinker*  
 B Suggett *die sinker*  
 A Thomas *die sinker*

### HW Teesdale

A Agar *fitter*  
 PJ Atkinson *draughtsman*  
 CT Bailey *turner*

## 1970/71 — Colin Mapplebeck

The presentation of this coveted trophy last year went to Colin Mapplebeck, a draughtsman with R&D Division. Colin was a worthy recipient of the award. His progress record maintained a high standard throughout his year in the Training Centre and showed his general assessment to be outstanding. Colin is at present taking his Honours degree course for his BSc Mechanical Engineering at Teesside Polytechnic.

## 1971/72 — Robert Hudson

This year the award went to Robert Hudson an electrician with HW

Stampings. Robert is the youngest apprentice to receive this award to date.

In his first year of training, he attained a very high standard of performance and his selection by an independent panel of adjudicators was fully endorsed by the Training Centre Staff.

*below left:* Colin Mapplebeck, the 'Apprentice of the Year' 1970/71, with his parents Mr & Mrs H Mapplebeck.

*below:* At the Annual Prize Presentation to HW trainees held on 24 March, Sir John Wrightson presented the Mary Burton Trophy to this year's 'Apprentice of the Year' Robert Hudson. Robert's proud parents are also seen admiring the tankard.



PF Blackwood *welder*  
 SA Bradley *draughtsman*  
 SE Bromfield *turner*  
 SP Butchart *welder*  
 AE Coulson *plater*  
 E Darby *welder*  
 D Godfrey *welder*  
 BP Hills *plater*  
 K Hutchinson *turner*  
 C McArthur *millwright*  
 P McLean *draughtsman*  
 S Mason *draughtsman*  
 SGC Metcalfe *turner*  
 HJ Parker *fitter*  
 AS Parry *plater*  
 MJ Stone *plater*  
 I Turley *plater*  
 G Watson *plater*  
 P Wennington *plater*  
 M Wood *plater*  
 PM Woodhead *draughtsman*  
 GP Wooding *welder*

*above:* Three of the four trainees who received Certificates of Craftsmanship well in advance of the completion of their apprentice training

*left to right:* Keith Charlton, John Sanderson and Stephen Cunningham. Unfortunately, the fourth member of the group John Pears was away at the time of the photograph

## EITB Certificate of Craftsmanship

Two young men from HW Teesdale, S Cunningham and JT Pears, both fitters/turners, received their Certificate of Craftsmanship for completion of two modules, which they achieved before completion of their apprenticeship. They are the first HW trainees to receive this certificate.

## FITC 1st Year Certificate Awards

### HW Foundries — Thornaby Works

J Colley *fitter*  
D Collier *moulder/coremaker*  
D Downing *moulder/coremaker*  
D Harris *moulder/coremaker*  
J Laverick *moulder/coremaker*  
B Longhorn *patternmaker*  
J P McElhatton *moulder/coremaker*  
K Tillotson *patternmaker*

### HW Foundries — Stockton Works

DA Allan *moulder/coremaker*  
I Caldwell *moulder/coremaker*  
M Davies *moulder/coremaker*

## Module Training Successes

The modules of the following trainees have been validated by the EITB:

### HW Machine Co

M Bird *fitter & turner* and  
S Simpson *millwright*

## FIRST AID GROUP

The HW First Aid British Red Cross Group, 41st North Riding, is a voluntary organisation of HW employees who render valuable service in providing first aid, when required, with works accidents. They also perform duty at works sports competitions and many of the group's members often undertake additional activities at hospitals, ambulance rooms, large gathering events and have rendered first aid at road accidents and with accidents in homes in their own neighbourhood.

The group presently comprises 36 active members, including 9 new recruits, who meet on Wednesday evenings 7 to 9 pm for lectures and first aid practice.

The committee are:

CJ Hope *HW Teesdale joiners shop*  
— Group Leader and Secretary  
JW Bullock *HW Foundry Thornaby Works* — Chief Instructor  
F Hodgson *HW Teesdale Machine Shop*

After many years of meeting in the Ambulance Room or the canteen, the group has now acquired a practice room of their own located

### HW Teesdale

*Fitters & turners:* AN Flinn, JE Kirton, DP McNeill, PA Miller and C Newton  
*platers:* EJ Allsop, MA Cronesberry, JC Dalking, PF Ford, R Pattinson, KE Thompson and LV Wilson  
*welders:* AP Cox, E Spacey, GM Spedding, JH Turner

### M J Bretherton HW Foundries — Thornaby Works

A special prize was awarded to Mike Bretherton by the Bolton Institute of Technology on the completion of his first year HND Foundry Technology course. The award is given to the best apprentice in each year's group.

### Michael Brown, Personnel Dept

Michael Brown achieved second place having been selected as one of the three finalists for the Teesside Junior Chamber of Commerce Business Student Award 1971. The three finalists are chosen for their performance in the ONC in Business Studies and Michael was the highest

placed student at the Stockton/Billingham Technical College. He recently had success in gaining his intermediate Institute of Chartered Secretaries and Administrators examination.

### John Sanderson and Keith Charlton HW Foundries — Thornaby Works

John Sanderson *patternmaker* has received the IBF prize for his further education at Longlands College for the third year in succession. This follows his previous success with the IBF practical patternmaking competition which he also won three times. It has also just been announced that John has won an award for the IBF written paper. In addition John, together with Keith Charlton *patternmaker* have both received their FITC Certificates of Craftsmanship well in advance of the completion date of their apprentice training. This is the first occasion that this has happened to HW Foundry trainees.

in the works of HW Teesdale. A lot of personal time was devoted by various personnel, in particular, John Hope and Jack Sills, in the conversion and decoration of the facilities now available. Prospective members should

approach any of the committee who will be very pleased to give information on the group's activities. Why not consider joining? — for first aid is a valuable asset and first aiders perform a humane service to the community.



## SAFETY- CONDITION OF EMPLOYMENT

In the spirit of accident prevention, it has been agreed with employees of the Iron Foundry Division, to make the wearing of protective clothing, including helmets and

spectacles, a condition of employment.

The shop stewards agreed to this proposal with considerable enthusiasm and the agreement was introduced with effect from the 6 March 1972.

In particular, all employees in the foundry production areas will wear the approved protective helmets and suitable goggles or other eye protectors in areas or occupations where there is risk of eye injury. This agreement is a commendable forward-looking step towards accident prevention.

# SPORT & SOCIAL

## 1972 Inter-departmental competitions

At the time of going to press the 1972 inter-departmental Football competition is in full swing with 15 teams competing for the trophy. The Bowls and Cricket competitions will again be held on Teesdale Park during the summer months, and the organisers look forward to record entries. Information on the various events will be displayed on Works notice boards.

## Friendly matches

To avoid clashing of fixture dates etc, organisers of friendly matches, particularly for cricket and football, are requested to contact the appropriate section secretary or Sam Ferguson *Social and Athletic Secretary* to arrange for the use of the facilities.

## HW bowls section

At the AGM of the Bowls Section held in the Social Club on the 11 April, the following officials were appointed for 1972.

*President* A Lackenby

*Vice President* A Waton

*Secretary* R Waller

*Asst Secretary* D Branson

*Treasurer* J White

*Competition Secretary* D Lackenby

*Veterans Secretary* G Woodward

*Committee* A Chesser T Dobson  
D Lackenby A Littlewood  
T Watson

## HW cricket section

At the AGM of the Cricket Section, held in the Social Club on 5 April 1972 the following officials were elected:

*Chairman* D Fryer

*Secretary* M Pratt

*Treasurer* S Whitmarsh

*1st Team Capt* D Fryer

*1st Team Vice Capt* G Bell

*2nd Team Capt* D Coupland

*2nd Team Vice Capt* A Bridgwater

The Committee will be pleased to

## 1972 Olympic contender

Stuart Morris a trainee patternmaker with HW Foundries—Thornaby Works is in the running for the 1972 Olympics with the British Track Cycling team.

Stuart has been training with the Olympics squad at Leicester and at 16-years-of-age he is the youngest contender for the British team which will be chosen in July.

He is at present the Teesside Division Ten Mile Champion and the Teesside Junior Division Road Champion, his time for the latter 50-mile race was 2 hours 4 mins. Last year Stuart notched up 33 cycle race successes including the Junior Classic over 50 miles at Stafford.



A view of the No 1 football pitch at Teesdale Park taken during one of last year's inter-departmental matches

welcome any new players who wish to join the Cricket Section during the coming season, particularly players for the 2nd team. Interested employees should visit Teesdale Park any Wednesday evening which is the section's practise night, or contact Derek Fryer or Maurice Pratt in the Shipping Dept.

## HW golf section

A welcome is extended to all HW golfers to participate in the various events arranged for the coming season. For information contact Mr C H Moore *HW Teesdale DO*.

## HW Senior Staff Guild

Following the AGM of the Senior Staff Guild held in the Social Club on

the 17 April 1972 the Council for the ensuing year comprises of:

*President* R Snowden

*Senior Vice President* G Lyons

*Secretary* G Wilks

*Treasurer* F Mothersdale

*Past President* L Bell

*Retiring President* KM Scott

*Council Members* R Brown

G Beckwith H Dawson

R Furphy W Gartry J Jeffels

L Marshall G Pinkney

## HW Social Club

The 'new-look' club continues to attract good support and last year the bar sales resulted in a 50% increase over 1970.

Bingo is played every Friday and Sunday evening at 9 pm.

Membership cards are obtainable from the Bar Committee or from your Works Council representative.



## HW Works Band summer concert dates

### Sunday 4 June

Stewart Park, Middlesbrough at 3.00 pm

### Saturday 1 July

Thornaby Town Centre at 3.00 pm

### Sunday 2 July

John Whitehead Park, Billingham at 3.00 pm

### Saturday 8 July

Ropner Home, Middleton-St-George at 2.30 pm

### Sunday 6 August

Promenade, Redcar at 3.00 pm

### Sunday 13 August

Guisborough Park at 3.00 pm

On 4 March the Band gained 3rd prize in the Northern Regional Qualifying Championships for the World Champion and Champion Band of Great Britain. On 22 April, in London, they attended the Grand Finals of the WD & HO Wills British and European Brass Band Championships and gained 3rd place out of 21 entries.

At Darlington Musical Festival on 25 March, the Band quartet gained first place, the players being G Smith, K Brown, C Dye and D Dye.

K Brown also gained first place for under 15-years-of-age as well as the open competition for the cornet.

D Dye gained first place for playing the horn. Mr A Walker gained first place for the trombone and his son, S Walker gained first place in the under-nine-years-of-age competition. These were under the leadership of Mrs Sykes.

The Band have also secured an opportunity to share the concert platform with the Northern Sinfonia Orchestra, which is a professional orchestra of international repute.

*Wright ahead extends congratulations to the bandsmen and to Clifford Midgley their conductor, on the recent successful achievements of the Band.*

get with it..

**WEAR  
THE RIGHT  
GEAR**

## FOR PERSEVERANCE

In these present difficult trading times the onus to seek and obtain work vastly increases the antagonising burden of the Sales Departments and the prevailing 'buyers market' requires maximum effort (and more often frustrating effort) by sales personnel in their endeavours to win orders.

It is, therefore, pleasing to report that Alan Sowerby *Sales Engineer HWPEL* was recently presented with an inscribed tankard by a customer in appreciation of the service he had given them.

## IN PRAISE OF MANOR HOUSE

One of our employees recently underwent treatment at Manor House Hospital and contributors to the Employees' Council may be interested in a letter received from him following his return home.

'I am very pleased that the Company is a member of the Manor House scheme, because I have just had treatment there which I doubt I could have received locally. In fact, it would have taken 18 months for me to be admitted into a local hospital, but after the HW representative had given me a form to fill in, I was admitted to Manor House within a few weeks of applying and treatment began immediately.

The staff at the hospital are very good and are concerned about all their patients.

The food is first class and even a menu is provided to choose from. My treatment for a back injury is a slow job but I know that in the end it will be a success. People are paying hundreds of pounds for this treatment and I've only paid pennies. I just had to write and tell you about Manor House because it is a good scheme to be in.'

## LADIES ONLY



### Chocolate caramel squares

4 oz butter

2 oz caster sugar

4 oz flour

$\frac{1}{2}$  teasp baking powder

### Method

Cream butter and sugar ; sift flour and baking powder and stir into creamed mixture. Mix lightly and spread on base of a well-greased swiss roll tin. Bake at mark 4 or 350° for 15 mins.

### Topping

4 oz butter

Small tin condensed milk

2 tablesp golden syrup

3 oz caster sugar

8 oz milk chocolate

To make topping : put all ingredients except chocolate into saucepan, bring to boil and cook 5 mins, stirring. Leave to cool and pour on to shortbread. Melt chocolate and pour over top.

When set cut into squares.

**TIDY WORKS  
ARE SAFE  
WORKS ...**

keep your  
works tidy  
and safe

# RETIRE- MENTS

We wish each of the following personnel a long and happy retirement.:

## HW & Co Ltd

Mrs DL Lonsdale 23 years' service  
GA Markham 20 years' service

## HW Foundries—

### Iron Founding Division

W Bell 23 years' service  
W Collin 23 years' service  
WG Durham 36 years' service  
E Littlefair 45 years' service  
JH Marlborough 28 years' service  
MA Shutt 25 years' service  
O Wynne 49 years' service

## Steelcast Division—

### Billingham Works

JB Atkinson 33 years' service  
S Critchley 27 years' service  
A Godson 45 years' service  
F Simpson 19 years' service  
A Williams 22 years' service

### Stockton Works

G Critchley 10 years' service  
JO Jarrett 43 years' service  
S Rudd 33 years' service

### Thornaby Works

GH Booth 50 years' service  
E Boyd 34 years' service  
RS Edmundson 22 years' service  
GW Hebron 16 years' service  
R Quigley 25 years' service  
JT Ross 22 years' service  
TE Smith 43 years' service  
J Turner 32 years' service  
D Wilkinson 25 years' service

## HW Machine Co

A Fisher 35 years' service  
J Martin 13 years' service  
F Parrish 18 years' service  
J Simpson 26 years' service

## HWPEL

CH Butcher 18 years' service  
A Herrington 22 years' service  
AJ Long (London) 26 years' service

## HW Stampings

J Corcoran 28 years' service  
D Lithgo 12 years' service  
FW McCarthy 16 years' service  
CW Osman 44 years' service  
GH Sheldon 32 years' service  
HE Stather 25 years' service

## HW Teesdale—

### Stockton Works

J Beesley 17 years' service  
FD Dalrymple 10 years' service  
S Denham 22 years' service  
D Head 26 years' service  
T Healey 31 years' service  
RA Jackson 47 years' service  
R Kemp 46 years' service  
E Norton 49 years' service

S Nugent 36 years' service  
J Sheldon 46 years' service  
H Squires 16 years' service  
E Smith 20 years' service  
GH Stephenson 14 years' service  
J Watson 17 years' service

## Thornaby Works

GD Cain 24 years' service  
FH Dryden 44 years' service  
J Fawell 48 years' service  
P Gaynor 13 years' service  
E Hall 35 years' service

## Mr GD Cain—HW Teesdale

Mr GD Cain *HW Teesdale*, recently retired as Bridge Yard Manager after 24 years' service with the company. On the eve of the Easter holiday, some 75 of his colleagues gathered

at the Blacksmiths Arms, Swainby for a grand farewell party. During the evening, George was presented with several gifts including a car radio, a cigarette box and a table lamp. The latter made by the Training Centre and presented by Ken Scott on behalf of 'Apprentices past and present'.

The photograph *below* shows Harry Soppet *HW Training Centre*, presenting the novel cigarette box, which was a particular surprise for George since it incorporated a model set of Haeusler rolls, one of George's favourite pieces of equipment! Also in the photograph is Mr W Summers a guest from Smiths Dock.



## Mrs DL Lonsdale

At a pleasing ceremony to mark the retirement of Mrs DL Lonsdale, secretary of the HW Employees' Council since it's inception in 1948, the vice chairman of the Council Mr J Hunter presented her with a cheque from the Employees' Council. Also in the photograph is the Chairman of the Council, Mr TH Stayman.



## Mr O Wynn

Mr Owen Wynn demonstrates his new electric razor, one of the gifts presented to him by his colleagues at Iron Foundry on his retirement after 49 years' service. Owen started with HW at the Forge in 1923 and he related that at one period there were four of the family with the Company, grandfather, father, son and cousin, all called Owen and all furnace tappers.



left to right: Frank Main, Jack Taylor, Owen Wynn and George Linton



**Mr J Corcoran**

Mr Frank Brown MD HW Stampings presents a retirement gift to Mr Jack Corcoran on behalf of his colleagues at Stampings. During his 27 years at Stampings, Jack was despatch foreman, then shear shop foreman and latterly in the office. He is reputed to have one of the finest gardens in Hartlepool.



**Mr H Stather**

At another retirement ceremony at Stampings, this time in the Maintenance Shop, Mr Frank Brown presented a wallet of notes to Mr HE Stather on his retirement after 25 years' service.

**THERE'S A PLACE FOR EVERYTHING even rubbish**

**MARRIAGES-BEST WISHES**

**The Friarage**

Mr L Close to Miss M Nelson  
*contracts dept*  
Mr K Harrison *accounts dept* to Miss L Thurston  
Mr K Lambert to Miss M Smith  
*personnel dept*

**HW Machine Co**

Mr D Simcox to Miss J Bennison  
*copy room*  
Mr DP Sullivan to Miss LHarbron  
*typing pool*

**HWPEL — London**

Mr M J Smetham, *SPD DO* to Miss C Burns



above: Mr & Mrs Close  
below left Mr & Mrs Harrison  
below: Mr & Mrs Lambert



**THE 1972 AMATEUR SNAPSHOT COMPETITION**

Our snap-shot competition this year is a little different from the previous ones, for the subject is :

**A front cover photograph for Wright ahead**

Wright ahead is published in the Spring (May), Summer (August) and Winter (December), the photographs can, therefore, portray any of these seasons or merely a photograph of general interest, or perhaps you have your own ideas on what you would like to see on the front cover !

The competition is open to all employees of the Head Wrightson

group of companies who are invited to submit their own snapshots (not more than four in number) which, in their opinion, would make an ideal front cover photograph for Wright ahead.

Entries may be black and white, or colour prints or even transparencies, but it must be remembered that our cover photographs have to be reproduced in black and white. The panel of judges will, therefore, take this into consideration, as well as looking for interesting photographs of good composition and technical merit.

A first prize of £5 will be awarded for the best photograph in the competition and other prizes will be given at the discretion of the judges. The closing date is not until early October 1972 so there is plenty of time to search through your snapshot collection or to be snap-happy this Spring and Summer. Full details will be published in the next edition of Wright ahead as to how, where, and when to submit your entries.

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